WHAT IS CLAIMED IS:

1. A system for network element fault information processing, the system comprising:

a network element;

a first communications link coupled to the network element, the first communications link to

carry communications to and from a customer; and

a computer, the computer coupled to the network element, the computer including a

processor and a memory, the memory storing a plurality of instructions to be executed by

the processor, the plurality of instructions including instructions to

receive a network element identifier, the network element identifier corresponding to

the network element,

receive a network element fault information processing instruction;

receive network element fault information; and

process the network element fault information based at least in part on the received

network element fault information processing instruction.

2. The system of claim 1, wherein the plurality of instructions include instructions to prompt
a user to enter the network element identifier.

3. The system of claim 1, wherein the plurality of instructions include instructions to prompt
a user to enter the network element fault information processing instruction.

4. The system of claim 1, wherein the instructions to receive network element fault
information include instructions to query for the network element fault information based at least
in part on the received network element identifier.

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5. The system of claim 1, wherein the instructions to process the network element fault information include instructions to identify network element fault information corresponding to one or more network element faults.

6. The system of claim 5, wherein the instructions to process the network element fault information include instructions to summarize the identified network element fault information corresponding to one or more network element faults.

7. The system of claim 6, wherein the instructions to process the network element fault information include instructions to determine a number of network element faults corresponding to one or more chronological periods.

8. The system of claim 6, wherein the instructions to process the network element fault information include instructions to determine a number of first network element faults and a number of second network element faults, the first network element faults being different from the second network element faults.

9. The system of claim 1, wherein the network element fault information is associated with one or more of the network element and the communications link.

10. The system of claim 9, wherein the network element fault information is associated with the communications link.

11. The system of claim 1, further comprising a server, the server coupled to the network element, the server including the network element fault information.

12. The system of claim 1, wherein:

the network element is a switch; and

the communications link includes one or more communications circuits.

13. The system of claim 12, further comprising a network management server, the network management server coupled to the switch, the server including the network element fault information.

14. The system of claim 13, wherein the instructions to process the network element fault information include instructions to summarize the identified network element fault information corresponding to one or more network element faults.

15. The system of claim 13, wherein the one or more network element faults are selected from the group consisting of transitions to down state, transitions to up state, and frame errors.

16. The system of claim 13, wherein the instructions to process the network element fault information include instructions to determine a number of first network element faults and a number of second network element faults, the first network element faults being different from the second network element faults.

17. A system for network element fault information processing, the system comprising:

a processor; and

a memory, the memory storing a plurality of instructions to be executed by the processor, the plurality of instructions including instructions to

receive a network element identifier, the network element identifier corresponding to

a network element,

receive a network element fault information processing instruction;

receive network element fault information; and

process the network element fault information based at least in part on the received

network element fault information processing instruction.

18. The system of claim 17, wherein the network element is selected from the group

consisting of a switch, a core switch, an edge switch, a circuit, a permanent virtual circuit, a

permanent virtual path, a logical port, and a customer premises equipment.

19. The system of claim 18, wherein the wherein the instructions to process the network

element fault information include instructions to summarize the identified network element fault

information corresponding to one or more network element faults.

20. The system of claim 18, wherein the instructions to process the network element fault

information include instructions to determine a number of network element faults corresponding

to one or more chronological periods.

21. A method for network element fault information processing, the method comprising:

receiving a network element identifier;

receiving a network element fault information processing instruction;

sending a query for network element fault information based at least in part on the network

element identifier;

receiving the network element fault information based at least in part on the query;

processing the network element fault information based at least in part on the received

network element fault information; and

outputting the processed network element fault information.

22. The method of claim 21, wherein receiving a network element identifier includes receiving one or more of a switch identifier, a circuit identifier, and a logical port identifier.

23. The method of claim 22, wherein processing the network element fault information includes identifying network element fault information corresponding to one or more network element faults.

24. The method of claim 22, wherein the network element identifier corresponds to at least one of a circuit and a logical port.

25. The method of claim 25, wherein the network element fault information processing instruction is an instruction to display transitions to a down state.

26. The method of claim 26, wherein the instruction to display transitions to a down state includes an instruction to display a number of transitions to a down state occurring during a chronological period.

27. The method of claim 27, wherein the chronological period is selected from the group consisting of a minute, an hour, a plurality of hours, a day, a plurality of days, a week, a plurality of weeks, a month, a plurality of months, a year, and a plurality of years.

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28. The method of claim 25, wherein the network element fault information processing instruction is an instruction to display a number of frame errors.

29. The method of claim 28, wherein the instruction to display a number of frame errors includes an instruction to display a number of frame errors occurring during a chronological period.

30. The method of claim 21, wherein processing the network element fault information based at least in part on the received network element fault information includes generating a data record, the data record including a plurality a data entries, each data entry of at least a subset of the plurality of data entries including a chronological identifier field and a network element fault indicator field, the chronological identifier field to store a chronological identifier, the network element fault indicator field to store a network element fault indicator.

31. The method of claim 30, wherein the network element fault indicator is a numeric value.

32. A method of processing network element fault information, the method comprising:

receiving a network element identifier, the network element identifier corresponding to a

network element;

receiving network element fault information based at least in part on the received network

element identifier;

processing the network element fault information based at least in part on a network element

fault information processing criteria; and

generating a network element fault data record based at least in part on processing the

network element fault information, the network element fault data record including a

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plurality of data entries, each data entry of at least a subset of the plurality of data records including a chronological information field and a network fault indicator field, the chronological information field to store chronological information, the network fault indicator field to store a network fault indicator.

33. The method of claim 32, wherein the network fault information processing criteria includes one or more network element fault types.

34. The method of claim 32, wherein:

the chronological information field is to store a date; and

the network fault indicator field is store a numerical value corresponding to reported occurrences of a network fault.

35. A system for network element fault information processing, the system comprising:

means for receiving a network element identifier corresponding to a network element;

means for receiving a network element fault information processing instruction;

means for sending a query for network element fault information based at least in part on the network element identifier;

means for receiving the network element fault information based at least in part on the query;

means for processing the network element fault information based at least in part on the received network element fault information; and

means for outputting the processed network element fault information.

36. The system of claim 35, wherein the means for processing the network element fault information includes means for identifying network element fault information corresponding to one or more network element faults.

37. The system of claim 36, wherein the network element is selected from the group consisting of a switch, a core switch, an edge switch, a circuit, a permanent virtual circuit, a permanent virtual path, a logical port, and a customer premises equipment.

38. A method for network element fault information processing, the method comprising:

a step for receiving a network element identifier corresponding to a network element;

a step for receiving a network element fault information processing instruction;

a step for sending a query for network element fault information based at least in part on the network element identifier;

a step for receiving the network element fault information based at least in part on the query;

a step for processing the network element fault information based at least in part on the received network element fault information; and

a step for outputting the processed network element fault information.

39. The method of claim 38, wherein the step for processing the network element fault information includes a step for identifying network element fault information corresponding to one or more network element faults.

40. The method of claim 39, wherein the network element is selected from the group consisting of a switch, a core switch, an edge switch, a circuit, a permanent virtual circuit, a permanent virtual path, a logical port, and a customer premises equipment.

41. A computer-readable medium storing a plurality of instructions to be executed by a processor for network element fault information processing, the plurality of instructions comprising instructions to:

receive a network element identifier corresponding to a network element;

receive a network element fault information processing instruction;

send a query for network element fault information based at least in part on the network element identifier;

receive the network element fault information based at least in part on the query;

process the network element fault information based at least in part on the received network element fault information; and

outputting the processed network element fault information.

42. The computer-readable medium of claim 41, wherein the instructions to process the network element fault information include instructions to identify network element fault information corresponding to one or more network element faults.

43. The computer-readable medium of claim 42, wherein the network element is selected from the group consisting of a switch, a core switch, an edge switch, a circuit, a permanent virtual circuit, a permanent virtual path, a logical port, and a customer premises equipment.